In the Claims:

1. (Original) An AAV vector characterized in that it carries at least one mutation resulting in a heparin-binding motif of a capsid protein being located within aa positions 470 to 592 showing a reduced or eliminated heparin binding function.

2. (Original) The AAV vector of claim 1, wherein said mutation results in an amino acid substitution of the capsid protein at aa position:

(a) arginine 475;

(b) arginine 484;

(c) arginine 487;

(d) lysine 527;

(e) lysine 532;

(f) arginine 585; and/or

(g) arginine 588.

3. (Original) The AAV vector of claim 2, wherein said amino acid substitution is a non-conservative amino acid substitution

4. (Original) The AAV vector of claim 3 with the capsid protein being characterized by at least one of the following amino acid substitutions.

(a) R475A;

(b) R484A or R484E;

(c) R487A or R487E;

(d) K527A;

(e) K532A;

(f) R585E; and/or

(g) R588E.

5. (Original) The AAV vector of claim 4 with the capsid protein being characterized by the amino acid substitutions R484E and/or 585E.

6. (Currently Amended) The AAV vector of ~~any one of claims 1 to 5~~ claim 1, which is an AAV-2 vector.

7. (Currently Amended) An AAV particle having a capsid encoded by an AAV vector of ~~any one of claims 1 to 6~~ claim 1.

8. (Currently Amended) A pharmaceutical composition containing an AAV vector of ~~any one of Claims 1 to 6 or an AAV particle of Claim 7~~ claim 1.

9. (Currently Amended) Use of an AAV vector of ~~any one of claims 1 to 6 or an AAV particle of Claim 7~~ claim 1 for gene therapy of non-hepatic tissue.

10. (Original) The use according to Claim 9, wherein said non-hepatic tissue is heart muscle tissue.